

Application No.: 10/748,396

Case No.: 57654US002

REMARKS

Reconsideration of the present application is respectfully requested.

An amendment is being made to the specification to correct a typographical error occurring on page 4, line 31. The correction makes the amended passage consistent with, for example, the passage on page 4, line 11. No new matter has been added.

Claims 1-13 remain pending in the application. Claim 1 is being amended for clarity as discussed below. No new matter has been added.

The Office Action refers to references submitted with a May 2004 Information Disclosure Statement for which legible copies were required to be submitted but were not received by the PTO. In response, Applicant re-submitted the pertinent references in a Supplemental Information Disclosure Statement (with legible copies) mailed in July 2005. The Examiner's acknowledgement of receipt of the references and consideration thereof are respectfully requested.

The undersigned and his colleague Ms. Milena Higgins wish to thank Examiner Pritchett and his SPE, Examiner Dunn, for the courtesy of an in-person interview which occurred at the USPTO offices in Alexandria, Virginia on August-2, 2005. At the interview, the Examiner suggested that an interpretation of original claim 1 (based on a strained reading thereof) would not distinguish over published patent application US 2004/0145803 (Eisenkramer). The undersigned argued that such an interpretation was a misreading of the claim language, and that Eisenkramer does not disclose any six-layer optical repeat units. After further discussion, agreement was reached that the above amendments made to clarify the scope of claim 1 would render the claim allowable. Support for the amendment can be found throughout the specification, including originally-filed claim 1 itself. No new matter has been added, and Applicant respectfully submits that the amendment does not narrow the scope of original claim 1 as properly interpreted.

§ 102 Rejections

The Office Action rejected claim 1 as being anticipated by U.S. Patent 4,229,066 (Rancourt). This rejection cannot be sustained.

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Rancourt does not teach optical repeat units with the layers arranged in a 6 layer sequence as set forth in claim 1. Instead, Rancourt emphasizes embodiments in which each of his "anti-reflection stacks" AR_2 and AR'_2 is made up of 4 layers (see e.g. col. 4 lines 4-19; col. 4 lines 35-40; col. 4 lines 50-62; col. 5 lines 11-44; FIG. 1), yielding an optical repeat unit with 10 layers, not 6 as recited in present claim 1. The 10 layers can be readily identified in FIG. 1 and the table in column 5 of Rancourt. The patent makes brief reference to embodiments where the "anti-reflection stacks" AR_2 and AR'_2 can be made up of other than 4 layers (see e.g. col. 3 line 66; col. 4 lines 26-35; col. 7 lines 19-20), but no clear teaching of 6-layer optical repeat units can be found. Hence, claim 1 is allowable over Rancourt.

The Office Action also rejected claims 1, 3, 4, 6, 7, 10, 12, and 13 as being anticipated by the Eisenkramer publication referenced above.

This rejection too cannot be sustained, because Eisenkramer also does not teach optical repeat units with the layers arranged in a 6 layer sequence. The 6 layer sequence identified in the Office Action (layers 14, 13, 12, 11, 10, 9 in FIG. 2 of Eisenkramer) does not repeat in the sandwich structure of Eisenkramer, and thus cannot be considered an "optical repeat unit" within the meaning of claim 1. (See p. 1 lines 18-20 of the present specification.) Claim 1 is allowable over Eisenkramer.

The rejected dependent claims 3, 4, 6, 7, 10, 12, and 13 are allowable at least because they incorporate directly or indirectly the limitations of claim 1. Applicant's disagreements with points raised in the Office Action regarding these claims are rendered moot, and will not be elaborated on.

§ 103 Rejections

The Office Action rejected claims 2, 5-8, 10, and 11 under 35 USC § 103(a) as being unpatentable over Rancourt.

It is axiomatic that these dependent claims are allowable at least because they incorporate directly or indirectly the subject matter of independent claim 1, which has been indicated to be allowable.

With respect to claim 5, The Office Action misses the point by referring to "a half wave layer". Claim 5 refers not to an individual layer but instead to at least one of the optical repeat

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units as having the specified optical thickness. Rancourt teaches instead that each of the (two) thick layers, which collectively make up a portion of his optical repeat unit, have a quarter-wave optical thickness in the wavelength of interest in the infrared plus or minus approximately 15%. (Col. 3 lines 23-26 and 55-57.)

With respect to claim 7, contrary to the Office Action, Rancourt does not teach suppressing reflection at one-half, one-third, and one-fourth of the design wavelength. FIGS. 5 and 6 of Rancourt are plots over different wavelength ranges but for the same filter (col. 2 lines 20-26; col. 5 lines 45-46), which filter has a reflectance peak (design wavelength λ_0) at about 10.5 microns (FIG. 5 and col. 5 line 48). The "secondary peak near 3.7 microns", referred to at col. 5 lines 49-50 and seen in FIG. 5, is a third-order unsuppressed reflection at one-third of the design wavelength. Rancourt teaches that that secondary peak "can also be placed near 5.0 microns instead of where shown on this plot" (col. 5 lines 50-51), which would make such secondary peak a second-order unsuppressed reflection at one-half of the design wavelength. With regard to FIG. 7 of Rancourt, that figure gives no information at all about suppressing reflections at one-half, one-third, or one-fourth of the (approximately 10.5 micron) design wavelength, because the wavelength range depicted in the figure does not extend far enough to show any of those wavelengths.

Applicant's additional disagreements with points raised in the Office Action regarding these claims are also rendered moot, and will not be elaborated on further.

Allowable subject matter

The Office Action indicated claim 9 would be allowable if rewritten in independent form. Applicant thanks the Examiner for the favorable indication, but submits that no rewriting of claim 9 is necessary in view of the arguments made above.

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CONCLUSION

In view of the above, it is submitted that the application is in condition for allowance, the early indication of which is earnestly solicited.

Respectfully submitted,

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